Deficiency of Nutritious Substances in the Soil

*113. SHRI SOM PAL: Will the Minister of AGRICULTURE be pleased to state:

(a) whether due to intensive farming, iron, zinc, sulphur and other such subtle nutritious substances are decreasing in soils of various regions;

(b) if so, the details of the research done and the information available in this regard; and

(c) the effects apprehended on the health and production of various crops and plants due to the deficiency of these subtle nutritious substances?

THE MINISTER OF AGRICULTURE (SHRI CHATURANAN MISHRA): (a) and (b) According to research findings, deficiency of iron, zinc, sulphur and other micronutrients has been noticed in various States due to intensive farming. Details are at statement (*See* below).

(c) The deficiency of micronutrients in the soil will affect plant growth and overall crop productivity and would therefore, warrant the use of micronutrient fertilizers. Therefore, their usage will be promoted through appropriate measures.

Statement

Extent of Micronutrient Deficiency in Soils of Different States of India (upto year 1994-95)

S. No.	State	No. of Samples Analysed	Percentage of Sample deficient in						
			Zinc	Cop-per	Iron	Mang-anese	Motyb-Denum	Boron	Su Phu
1.	Andhra Pradesh 1)	6031	56	1	2	1	—	—	
2.	Assam 2)	12165	34	—	—	—	—	17	
3.	Bihar 3)	22735	55	3	6	1	41	—	
4.	Gujarat 3)	29532	24	4	8	4	10	912(489)	
5.	Haryana 3)	23312	53	3	22	4	—	—	
6.	Karnataka 4)	52457	80	3	31	8	25	—	
7.	Madhya Pradesh 3)	31491	62	1	3	1	18(92)	22(1249)	
8.	Mahrashtra 5)	4877	28	4	31	1	1	10	
9.	Orissa 2)	16041	54	1	—	—	—	69(882)	
10.	Punjab 1)	15989	47	1	27	2	—	—	
11.	Tamil Nadu 1)	20279	52	27	17	6	—	—	
12.	Uttar Pradesh 3)	28477	40	1	4	2	1	—	
13.	West Bengal 2)	6547	36	—	—	3	—	68	

( ) Number of samples analysed.

[1]based on State Agricultural University in formation.

[2]Based on district surveys of Indo-British Fertilizer Education Project (IBFEP).

[3]Based on ICAR Micronutrient Coordinated Project, PDIL survey and IBFEP information.

[4]Based on State Department of Agriculture information.

[5]Information supplied by Agricultural University, Parbhani and Rahuri.

Source:—Market Survey of Micronutrient Fertilizers in India-Study by Projects and Developm India Ltd., 1996.

* —Progress Report (1993-94 and 1994-95), All India Coordinated Research Project of Micro- Secondary-Nutrients and Pollutant Elements in Soils and Plants.